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A LECTURE ON HÆMOPTYSIS.

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(Concluded from page 88.)

In place, however, of the active hæmorrhage, of which I have now disposed, cases are, perhaps, as frequently to be encountered in a very opposite condition of system. Commonly they are found among the valetudinary, and especially those of scrofulous or tubercular tendencies. Manifestations of incipient or more advanced consumption exist in many instances. Together with a dry, diminutive cough, hurried respiration, and more or less pain or uneasiness of chest, we have a quick, irritated, or very feeble pulse, occasional hectic flushes, much prostration of strength, and a pallid or sallow skin, with softness, flaccidity, and bloatedness. The discharge of blood may be small, in sufficient quantity merely to streak the sputa, or, perhaps, a mouthful or two of it, and then ceasing for a time. Extreme laxity of the exhalents existing, or proceeding from congestion of the lungs, it is copious, pouring in a stream, so that a pint or more escapes.

Concerning the cure, there are mainly the same objects to be attained, as in the preceding form of the disease. The first is to check the bleeding when profuse, and to which end, the means before enumerated, except the evacuant, or otherwise depressing, may be employed. Even these, however, are not totally to be excluded under certain circumstances. It may, indeed, become indispensably necessary, where there is very heavy oppression, to take away a small portion of blood, generally or topically.

As an additional remedy, the spirit of turpentine should be mentioned, given in the dose of ten, fifteen, or twenty drops, very frequently repeated. The powdered capsicum, in four or five grains, repeated in the same way, has also been recommended, though its propriety seems to me very doubtful. From a scruple to half a drachm of the nitrate of potash, in an ounce of brandy, is very effectual, according to some recent reports. Neither of these two last remedies have I tried. Cullen praises alum, which I have not found of service,—and the same remark applies to certain vegetable astringents, as kino, catechu, &c. Greater advantage may be derived from the elixir vitriol, ten or fifteen drops at a time, adequately diluted in sweetened water, and much has recently been said of the creosote.

The most decisive of all measures, however, is an emetic, the *modus operandi* of which is not obscure, and the practice may be vindicated *a priori*, independently of any evidence of facts in support of the deduction of reasoning.

In hæmorrhage, there is a want of equilibrium in the circulation, occasioning irregular determinations of blood, some one organ being surcharged at the expense of other portions of the system. The impression of the emetic, in conformity with an old aphorism, "ubi irritatio, ibi affluxus," probably invites, primarily, a current to the stomach as a centre of fluxion, and thereby immediately tends to exonerate the previously affected organ from its oppressive congestion,—and, secondarily, by filling the cutaneous vessels especially, re-distributes the blood, and hence restores that just balance, which had been subverted. Effects like these from puking, are very observable in the congestive forms of fever, and other acute diseases. In our late typhoid epidemics, both of the winter and summer, how effectual this process proved in relieving engorgements of the great viscera, is sufficiently known. Numerous were the instances which I saw myself of its extraordinary success where the liver, or the spleen, or the lungs, or even the brain, was unduly loaded.

But more than I have indicated, is to be ascribed to emetics in restraining hæmorrhage. Nausea itself represses the force of the circulation, and in some cases must be useful,—though it is to the controlling influence over the whole of the capillaries, changing that condition which admits of sanguineous exhalation, that their efficacy is mainly owing. As colliquative perspiration, watery diarrhœa, and hydropic effusion, are sometimes arrested by vomiting, so does it operate in hæmorrhage. The exhalents in all these cases, under certain circumstances, become morbidly changed,—and a sanguineous or serous discharge ensues, according to the peculiar modification of condition which may exist at the time.

It remains only to detail some of the results of my experience, in confirmation of the efficacy of the practice which has been suggested, to be illustrated by a few examples.

In 1807, I was called to a young man of consumptive tendencies, who, for several months, had suffered occasionally from hæmoptysis, and was treated by another physician, in part, by digitalis. Being suddenly attacked with a copious effusion of blood, he took before my visit an exorbitant dose of the medicine, which excited vomiting,—the hæmorrhage ceased, he became convalescent, and ultimately recovered. Effects so decided, I did not then impute altogether to the act of puking. As often happens from digitalis, an extremely distressing nausea continued for several days, to which I thought it probable the permanent benefit was, in a considerable degree, owing.

Encouraged, however, by the cure, and influ-

enced, perhaps, still more by theoretical notions of the nature of hæmorrhage, and of the applicability of the remedy to it, I resolved to subject the practice to a further and fairer trial.

It was not long before I had an opportunity of doing so, in the instance of a young man from the country, whom I had been attending for several weeks, for pulmonary consumption. Three years previously to my seeing him, he was compelled to abandon the study of the law on account of the frequent recurrence of spitting of blood—and when he came under my care, was far advanced in phthisis. One night, he was aroused from sleep by a repetition of the hæmorrhage, and on my arrival had lost more than a pint of blood without any diminution of the flow. Common salt, sugar of lead, and such like articles, were used in vain,—and bleeding, generally or locally, seemed inadmissible, from the debilitated state of the system, and of the pulse especially. Excepting an emetic, I was nearly destitute of resource in this emergency,—and, accordingly, twenty grains of ipecacuanha were administered, which soon bringing on vomiting, the effusion was suppressed. On several subsequent occasions, the same means proved equally effectual, though, ultimately, he died of the main disease.

I had, within a month, a third case, which afforded me a further opportunity of pursuing the practice, and of confirming my confidence in its efficacy. It was that of a young woman, who, a considerable time before, having suppressed the menses, by an exposure to cold, had ever since, at irregular periods, suffered from hæmoptysis. When I saw her, which was in consultation, the hæmorrhage had already existed for forty-eight hours, the loss of blood very considerable, and she much exhausted. As the usual remedies had been unavailing, I induced Dr. Stewart, with whom I was attending, to try an emetic of ipecacuanha, which put an end to the hæmorrhage, and by proper management, subsequently, menstruation returned, and with it, a restoration of health.

Thirty years have since elapsed, during which lengthened period I have pursued this treatment, and with such success as to have inspired great confidence in it. Like all other means, it will sometimes fail, as might be expected, from the diversified nature of the causes and states of the hæmorrhage. But I am persuaded, when properly applied, it will be found to do more than any thing else,—and, certainly, from my own observations, it never produced mischief in the vital or spontaneous extravasations. The emetic I have preferred, and, indeed, only prescribed in these cases, is ipecacuanha.

To treat hæmoptysis in this mode, is not a practice resting on my authority exclusively.

Towards the middle of the last century, it was strenuously recommended by Dr. Bryan Robinson, of Dublin, whose publication on the subject attracted great attention. To his evidence in favour of it, might be added the attestations of several other respectable writers. Cullen, however, having tried the practice unhappily in a single case, probably from rupture, did much towards its condemnation, from the great weight of his authority. Neglected, it was not, however, entirely abandoned. We find, on the contrary, it receiving the support of Maryatt, Stoll, Burserius, Mosely, &c. Willis, too, so celebrated for his skill in the treatment of mania, especially for the cure of George III. of England, resorted to it freely, and declared that ample experience had taught him to confide in it above all other means, as well on account of its safety as efficacy. In this latter opinion, however, I do not entirely concur. Cases of hæmoptysis do occasionally arise from rupture, by ulceration of vessels, or mechanical causes, to which it is not at all adapted, and where, indeed, it might prove aggravatory, or even fatal, and such are not always readily discriminated.

The second indication in this weak form of hæmoptysis is to invigorate the system, and, through it, to impart tone to the relaxed or patulous vessels, and to rectify the state of the blood itself. To attain this end, the various astringents and tonics are usually called into requisition. Before prescribing any of them, it were well, however, to be assured by a careful perquisition, that no congestion or inflammation, or more serious lesions prevail. The state of hæmorrhage to which they are almost exclusively adapted, is where the process of hæmatosis is badly performed, or the system is rendered nearly exsanguineous by previous losses of blood from hæmorrhage, or in any other mode, that remaining being thin, pallid, and impoverished, oozing out chiefly from its own tenuity. Great disorder, or pravity of system, with the chlorotic or cachectic aspect, and extreme debility, are here observable.

The Peruvian bark was formerly among the first of the articles to attract attention. Many of the older writers confess its utility, and there are some who extravagantly praise it. But I seldom employ it, except in cases distinctly periodical in their nature, and here the sulphate of quinine is much to be preferred. It may be given alone, though its powers are sometimes improved by a combination with the chalybeates, of the efficacy of which much is asserted, and undoubtedly with justice. Eminently calculated are they to improve the constitution of the blood itself, and hence their utility in that species of hæmorrhage, owing to this condition chiefly. There is, however, a choice among the martial preparations. The muriated tincture is said to be best, though the hydriodate, the carbonate, the sulphate or phosphate of iron, answer very well, and especially the last.

Of the management of the idiopathic and more regular forms of hæmoptysis, I have now disposed. But it has anomalies originating in some peculiarity of cause, which ought not entirely to escape notice. Most of such cases are of a secondary nature, and were pointed out in tracing the etiology of hæmoptysis. Emanating from the irritation of a tubercular or any other essential

pulmonary lesion, or derangement of the heart, or of the abdominal viscera, the effusion of blood, incidental only, must be subordinate to the pre-existing pathological condition, in every rational or efficient scheme of cure. But the consideration of these primary affections were alien to my present purpose, it being reserved for the future. Nor can I, with propriety, do more in this place, than summarily to state, that when hæmoptysis is owing to a suppression of the hæmorrhoidal, catamenial, or other discharge, or the repercussion of cutaneous eruptions, or the metastasis of gout or rheumatism, the endeavour should be to re-establish these several affections, in their original positions, and then to aim at their eradication,—or, excited by an elongation of the uvula, or enlarged tonsils, or any affection removable by a surgical operation, this is, at once, to be performed.

By prosecuting a course such as I have laid down, correctly shaping it to the peculiarities of each case, we shall frequently succeed in accomplishing a cure. Yet in some instances, and especially when it is connected with constitutional or local imperfection, hæmoptysis leaves behind it a liability to relapse on the slightest provocation. To guard against these repetitions of attack, a system of prophylactic instructions should be carefully suggested, and undeviatingly observed.

1st. The exciting causes of the hæmorrhage must be pointed out and avoided. Taking cold is the most common of these, and at the same time, is very apt to entail serious consequences. But there are others scarcely less to be apprehended, and among which are inordinate exertions of the voice. Let those especially, who are necessitated to pursue a profession dependent on public speaking, be impressed with the importance of moderating its tone. As one of many examples of the utility of this advice, we learn that Atticus, the friend of Cicero, having acquired the habit of vociferation, and suffering consequently from hæmoptysis, repaired to Athens, to be taught a more tempered and graceful elocution, in which succeeding, he had an exemption afterwards from the affection.

2d. In regard to regimen, some distinction is to be made, and first as to diet. To the active form of the hæmorrhage, vegetable matter, particularly the mucilaginous or farinaceous, is best suited; and to the other, light animal nutriment, as milk and eggs; and I have known malt liquors, in moderation, sometimes to prove very serviceable. Exercise, in each instance, is of importance, provided it be cautiously used, and the system properly prepared for it. On this point great errors are committed. Not unusually, patients are ordered on horseback, or even sent on a journey, with activity of pulse and febrile excitement. From such mal-practice, a recurrence of the hæmorrhage, with aggravation, must inevitably result.

3d. To watch the state of the pulse and respiration. Either thoracic pain or oppression, or any considerably increased force of circulation, is a sufficient ground of apprehension, and must be removed without delay. To effect the purpose, small bleedings, general or topical, are demanded, a still lower diet, a state of rest for the time, some laxative, or perhaps febrifuge medicine, and, in short, the whole antiphlogistic plan in all its parts. Where a slight hæmoptysis is attended by a quick and irritated pulse, and considerable mobility and weakness, digitalis has been found useful. No longer admissible is the loss of blood, and that article may be resorted to as a substitute, so administered, as just to affect the circulation, and keep it within its natural standard.

4th. Great good has been experienced from a succession of blisters, and these, where there is a considerable topical affection, are to be applied to the chest: under other circumstances, they will do very well on the extremities, acting as divellents. It is to be borne in mind, that even in less active hæmoptysis, though there be general debility, *local congestion*, with sometimes inflammation, may exist; and as the removal of these states is of primary importance, the appropriate remedies, though *depletory*, are not to be timidly withheld.

5th. In some very obstinate cases, a slight mercurial impression should be tried. The effect thus induced in the mouth serves, it has been said, as a diverticulum to the diseased action of the lungs. But more probably, by the general and revolutionary operation of mercury on the system, it supplants the disease, substituting its own peculiar action in place of it. To those cases in any degree connected with obstruction of the chyloporitic viscera, it is particularly adapted. An exception to this practice is to be found in a tubercular state of the lungs, or vitiation of the blood, formerly described, with which the use of mercury is utterly incompatible.

6th. Emetics, occasionally repeated, are entitled to confidence. They operate, by breaking up the habits and associations which continue the predisposition, and are, also, well calculated to emulge loaded vessels, and to distribute the blood equally throughout the circulation.

Conduct, however, the treatment as we may, hæmoptysis sometimes presents itself, of a nature so stubborn, that it will resist all these endeavours. Consulted, in such cases, we should advise, as the very last resource, a removal to a temperate climate, and by a voyage, when practicable. This has very often protracted life, and even effected permanent relief, where every thing else had failed, and under circumstances the least promising.

Of the treatment of hæmoptysis, I have only a few words more to say, and these regard the conduct of the case during, and immediately following, the flow of blood.

1st. The moment we are called to it, a state of rest, in bed, is to be enjoined, with the shoulders elevated, and the lower extremities extended, for reasons before stated.

2d. The chamber is to be kept cool, and well ventilated.

3d. Company should be excluded, and the patient not permitted to talk.

4th. Diet to consist of small portions of demulcent drinks, acidulated, and drank cold. It is right that the stomach be not loaded, as through it the lungs become oppressed.

5th. The bowels to be kept in a soluble state.

Not the least of the errors committed in the management of this disease, is an attention too exclusive to the mere suppression of the bleeding. The fact is, as previously stated, that such hæmorrhages are, for the most part, the efforts of nature to exonerate the lungs of oppressive accumulations of blood, or to reduce phlogosis, and, if not excessive, are probably as salutary as epistaxis in the affections of the brain. They may, it is true, leave some coagula or clots in the bronchial or cellular structure, which sometimes do harm, and this seems to me to be the main objection to permitting the effusion to continue. These remarks obviously apply to hæmorrhage of the mucous membrane only. It is very different with respect to the other form of the disease, where the consequences are so serious, that it should be arrested as speedily as possible. Cases, however, of this kind are so rare, that the principle is scarcely affected. No sound practitioner doubts, that the hæmorrhage of itself is comparatively of little moment, the real object of attention being the correction more especially of the morbid state of the pulmonary organs giving rise to it, and which, if not timely arrested, results too frequently in the full establishment of phthisis, or some other fatal lesion of the lungs.

Contemplated in another light, the ordinary treatment of this affection seems to me to be amenable to criticism. Governed by no principle, pathological or therapeutic, it is empirical, or at least tentative, every sort of nostrum or specific being tried to suppress the effusion of blood. Genuine hæmorrhage may be mostly resolved into one of two conditions, either inflammatory or congestive, and to be managed accordingly, whatever removing these states being the best calculated to put an end to the effusion, which is merely an effect. Guided by this view, and having little confidence in those articles usually deemed peculiarly appropriate, such as astringents, I seldom resort to them, preferring to conduct the cure on common principles, and by common remedies.

Case of Ovarian Abscess, with Rupture into the Cavity of the Abdomen. By H. S. Patterson, M. D.

M. S., a negress, aged twenty, with procidentia uteri, came under my care as a dispensary patient in July last. She had never been pregnant, and menstruated regularly. She stated that her uterus was first prolapsed by a strain in lifting, about a year before. It was then "put up" by a physician; but pain in the back and sides, with profuse leucorrhœa and ardor urinæ, had been constant since. The procidentia was of several weeks' standing. The uterus was very tender to the touch,—and any attempt to replace it gave the sensation of raising a large mass, producing, at the same time, excruciating pain in the back and hypogastrium. Finding this, I desisted and ordered absolute rest, cups to the loins, laxative, and a saturnine lotion. Leaving town a few days after, I placed her under the care of my friend Dr. G. R. Winter, who, perceiving that the exposure of the uterus caused painful excoriation, succeeded in replacing it within the labia. This relieved the discharge and scalding, but she remained otherwise the same until the evening of August 14th, when she was suddenly attacked with intense pain in the abdomen, which increased rapidly, and early next morning she expired.

Autopsy, nine hours after death, assisted by Drs. Warrington and B. F. Hardy. The cavity of the abdomen was found to contain a very considerable quantity of thin, purulent matter. The peritoneum, in its lower portions, was much injected. The fallopian tubes and ovaries were of a dark purple colour, and greatly enlarged,—the latter to the size of an orange. The large intestines adhered to these in several points, and about them were numerous hydasids of various sizes. The appendicula vermiformis was firmly adherent to the right ovary, and at its extremity was an opening of the size of a quill, from which pus flowed on pressure. A probe inserted into this opening, passed freely upward into the cæcum, and downward into a cavity in the substance of the ovary. The mucous membrane of the appendicula presented several ulcerated spots, and could be traced distinctly to the opening. Nothing remained of the ovary but the thin walls of an abscess, the internal surface of which was rough, ragged, and of a dark purple. The pus contained had also a reddish tinge. The left ovary was in the same condition, but still entire. The uterus was normal.

The most interesting fact connected with this case, is the condition of the appendicula vermiformis. Had not the unfortunate rupture into the peritoneal cavity taken place, there can be no doubt that a way would have been provided, through which the contents of the abscess might be discharged into the bowel.

Case of Chronic Rheumatism, treated by the external application of Veratria. By James F. Latta, M. D.

J. B., Esq., had been the subject of chronic rheumatism, of a very painful character, for fifteen years. The part affected was the right lower extremity. All the muscular and ligamentous structures contributing to the motion and formation of the knee and hip-joints, appeared to have been involved in the disease. The head of the femoral bone had undergone a partial dislocation, from the contraction of the muscles inserted below it. The flexor-tendons of the leg were also hardened and contracted—while the balance of the

entire limb was very much diminished, from atrophy of almost every portion of its structure. The pain attending this state of things was described as unremitting, and, occasionally, very intense. For many years the patient was unable to lie upon the right side, or to sleep with the limb in a flexed position. If, during the night, he unconsciously turned upon the affected side, or if the limb assumed any other than a straight posture, he was soon awakened by a dull, gnawing pain, which was relieved by frictions with the bare hand, or with flannels. A false step, throwing the weight of the body upon the diseased member, or slight exercise upon foot, is represented to have been followed by pain, particularly about the knee-joint, almost beyond endurance.

In January, 1838, I received, through the "Select Medical Library," Dr. Turnbull's remarks on *veratria*, and other medicinal remedies of a cognate character. The flattering results of Dr. T.'s experience with the article in question, induced me to propose a trial of its virtues to the gentleman whose case has been detailed.

My proposal was acceded to with little prospect of relief,—for all the resources of regular practice, the *infallible* remedies of empiricism, and the incantations of magic, had hitherto proved to be unavailing resorts. Agreeably to the directions of Turnbull, I prepared an ointment consisting of fifteen grains of veratria to an ounce of lard—a small portion of which, about the bulk of a chesnut, was directed to be rubbed into the affected part, every night, before going to bed.

Very sensible relief was obtained from the first application. The frictions had not been long continued until that peculiar sensation was perceived, which is described by Dr. Jackson, of Philadelphia, as closely resembling that we experience when a limb is said to be asleep. Unless this result follow the use of the ointment, no advantage, according to Dr. Turnbull, may be expected from its application. The treatment was continued for several successive nights—intermitted and resumed for two or three weeks—when I had the satisfaction of learning that my patient enjoyed, what he had not done for many years, entire exemption from pain.

It is now about ten months since the veratria was last applied. The late sufferer sleeps soundly on either side, and with the limb in either the flexed or straight position. The latter is still shortened, from the muscular contraction alluded to above, and continues of diminished size. *But the pain is gone*—an event to which the subject of these remarks had long ceased to look forward.

Chester County, (*Pa.*,) February, 1839.

ERRATUM IN NO. 6.

In the foot note at page 96, first line, for *ovum*, read *ovaria*.

BIBLIOGRAPHICAL NOTICE.

The Principles of Diagnosis. By MARSHALL HALL, M. D., F. R. S. *London and Edinburgh Edition, etc. Second American Edition, with Notes.* By JOHN A. SWETT, M. D. pp. 458. New York: D. Appleton & Co. 1839.

THE works of Dr. Hall are well known to many of our readers,—that on Diagnosis is not amongst the least familiar of them. The present edition is published under the inspection of Dr. Swett, one of the best educated physicians of New York, and one well able to appreciate the importance of rendering the study of accurate diagnosis popular amongst his countrymen. The editor has added a number of valuable notes, and expresses his obligations to Dr. Bulkley, of New York, for the additions relative to diseases of the skin.

Hall on Diagnosis has been so long before the public, that it would be misplaced for us to speak of the merits of the work. The just evidence of its value, is the approbation which it has received from the public, sustaining the work through several successive editions. But we are glad to express the satisfaction we feel at the evidently increasing attention which the subject is receiving. It is but a few years since, that it was regarded as at least unnecessary, if not ludicrous, to attempt a minute diagnosis of the numerous varieties of disease, and of the organic lesions which occur during their course. This is no longer the case;—most physicians are convinced that accurate diagnosis is always useful, and often essential to the correct management of diseases, and that without the most diligent attention to the distinctive characters of disease, we can never arrive at the knowledge of pathology which will point out to us the exact limits of our art.

It should not, however, be forgotten, that diagnosis is at present necessarily imperfect,—and a work like that under consideration can do nothing more than assist us in acquiring the signs of disease, as far as they are at present known. It is a useful guide to those who possess a general acquaintance with disease, and presents to them the symptoms grouped together in such a way as to be most convenient for application. It must not be regarded as a work on disease in general, but simply as a means of retaining our knowledge, and of keeping it in readiness for use.

CLINICAL LECTURES.

PHILADELPHIA HOSPITAL.

ON PNEUMONIA—(CONTINUED.)

Saturday, January 12th.—Dr. Gerhard remarked:

If the general symptoms of pneumonia are uncertain, we are happily enabled to recognise the disease with great certainty by means of the physical signs. Nay, we may go much further, and can point out the exact portion of the lung which is affected—the stage of the disease—and the rapidity with which it advances or declines. The physical signs do not even stop here; we can appreciate, by their aid, the alterations left in the lung after the disease has completely ceased, and are able to ascertain, in a positive way, whether the disease has left behind any permanent traces of its existence.

In order to understand clearly the physical signs of pneumonia, it is necessary for us to examine the changes which occur in the anatomical structure of the lung in every stage of the disease. This we can do very readily, by recollecting the appearances which I demonstrated to you a short time since, in the lungs of a patient dead of pneumonia, complicated with arachnitis. You then saw, as is most frequently the case, the different stages of the disease exemplified at one and the same time. At the upper portion of the lung, the tissue was injected with various shades of red; varying from a bright rose tint to a deep purple, and containing a much larger quantity of blood than usual, which exuded upon slight pressure. The tissue was somewhat friable, but contained air in every portion of its extent. The shades of redness are so various that you may, if you choose, subdivide the first stage of pneumonia into two or three varieties; but as little practical advantage results from these minute distinctions, it will be better for you to regard all these various phenomena as an indication of shades of the same pathological condition. The bronchial tubes are reddened in this stage, and slightly thickened, containing a little thin mucus. It is extremely difficult to distinguish this variety of the disease from simple congestion of the lung. Indeed, it is not possible always to do so. But in most cases of true pneumonia, the difficulty is unimportant, for portions of the lung are almost always inflamed to a greater degree, and advanced at the second or third stage.

The second stage of pneumonia is much better characterized. In this stage the blood which accumulates in the lung, in consequence of inflammation, becomes, as it were, incorporated with its tissue, and gives an unusual degree of density to it. The lung sinks in water, contains no air, has lost its elasticity, and is friable upon pressure, which forces from it a reddish liquid. The vesicles of the lung distended with coagulated blood, or perhaps with lymph, are turgid, and swell out when the lung is torn, giving to it a peculiar granulated appearance. The bronchial tubes are now much inflamed, their mucous membrane, exteriorly, red, thickened, and covered with an opaque, thick, whitish, and tenacious fluid, very similar to the matter expectorated—that is, the larger tubes, for the smaller ones are gradually compressed by the progressing of the second stage. Their sides are pressed together by the distended lung, and air no longer enters them. The second stage is the most characteristic of pneumonia, both from its physical and general signs.

The third stage presents a change in colour; the tissue is at first marbled with yellow, which contrasts with the red colour of the second stage. Gradually the yellow colour extends, until the whole inflamed portion is of a yellow or greenish tint; the vesicles are less distended, and the granulated appearance is less evident, while the bronchial tubes are still greatly inflamed, and become totally impervious to the air. The colour results from the infiltration of pus, which gradually extends through the lung; in proportion as the infiltration becomes complete, the tissue of the lung loses its consistence, and in extreme cases may be washed away by directing a small stream of water upon it, leaving the bronchial tubes and vessels without the intervening vesicular structure. In most cases, however, the softening is less complete; the lung is readily broken down by pressure, into a yellowish pulp, but its texture is still preserved. In most cases which terminate fatally, a portion of the lung, at least, has passed into the third stage.

A fourth period may occasionally be observed in pneumonia; that is, when the pus is no longer infiltrated with the cellular tissue of the lung, but is collected into well-defined abscesses. These are formed very slowly in pneumonia; it would seem that the bronchial tubes and vessels, which are disseminated so numerously throughout the tissue of the lungs, prevent, in a great measure, the collection of the pus into masses. When an abscess takes place, it presents very nearly the same characters as are observed in any other portion of the cellular tissue of the body, and it is surrounded by the usual false membrane. These abscesses are very rarely found in the dead body, because those patients who have passed through the early stages of the disease almost uniformly recover—the formation of pus being, in fact, the best evidence possible of the termination of the diseased action. When abscesses are cured, in some cases, entire adhesion takes place between their walls, and in others the cavity becomes fistulous, and is lined with a firm, but transparent membrane, which secretes merely a small quantity of mucus.

The pathological changes occurring in cases of pneumonia, which have not advanced as far as the second stage, are also worthy of note. In cases which have been cured while still in the first stage, or even in the beginning of the second stage, the lung gradually resumes its former appearance, without leaving any trace of the inflammation. In other words, the resolution is complete. When the disease has advanced to the third stage, or when the second stage has

existed for several days, the lung is slow to recover its normal condition; it remains for a long time flaccid, and contains very little air,—in some cases it is even contracted by adhesions which confine it closely to the ribs. When you recollect that the lung does not immediately return to its natural state, you can readily account for the permanence of the physical signs of the disease, which always persist after the general symptoms have more or less completely disappeared.

In describing to you the pathological appearances observed in pneumonia, I am merely recapitulating what I have already demonstrated to you in the earlier part of the course,—and you should recall to your recollection the aspect and physical condition of the lungs in each stage of the disease, if you desire to form to yourselves a clear conception of the changes in the physical signs of disease which correspond with them.

The physical signs are very regular in their developement, and are, to a certain extent, illustrated by the case of pneumonia which I described as an example of the simplest form of the disease. In the first stage you will observe, in a considerable number of patients, a decided crepitant rhonchus; perhaps the greater number of patients to whom you are called will offer this phenomenon at your first examination. Still, you should not conclude that this sign is the first physical evidence of pneumonia. I have long since satisfied myself, that in by far the greater number of cases, both in children and in adults, the earliest signs of pneumonia are not the crepitant rhonchus. The disease generally begins about the root of the lung, at a certain distance from the surface, and the signs on auscultation depend upon two different circumstances—upon the obstruction to the passage of the air through the engorged portion, and the increased rapidity with which it is driven through that part which is still quite permeable. Hence you will find that the respiration is more or less rude or rough, and at the same time imperfectly vesicular in the part of the lung which is the seat of the inflammation. At the same time we often detect a loud, puerile respiration, surrounding, as it were, the inflamed portion, and more or less intermixed with the rude respiration. These modifications of the respiratory sound occur very early in the disease, and are often accompanied by the more doubtful functional signs which indicate the beginning of pneumonia.

The crepitous rhonchus is rarely developed in its greatest perfection until a portion of the lung has passed into the second stage. You then discover the bronchial respiration around the large tubes, and the crepitant rhonchus near the part of the chest in which it is heard. If a strong inspiration be taken, the crepitant rhonchus is quickly reproduced in the parts where the bronchial respiration is alone heard when the inspiration is but moderately rapid. You have all heard these sounds in several cases of pneumonia, which have been recently in the hospital; and you must have remarked in one of the last of these cases, that the crepitant rhonchus which had entirely ceased near the summit of the lung, was immediately reproduced by directing the patient to cough with some force,—a strong inspiration afterwards forced the air into the bronchial tubes, which had been, in great part, freed from the accumulation of mucus by the cough, and a very distinct crepitus followed. In the case which formed the subject of the last lecture, the crepitus was loud, and well-marked in the whole extent of the inflammation, which proved that the disease had not passed so far through the second stage as to prevent the air entirely from entering the tissue of the lungs.

The cause of the crepitant rhonchus is probably twofold; it results in part from the viscid mucus, which obstructs the smallest tubes, and breaks up with a crackling noise when the air is forced into them, and in part from the rigidity of the walls of the vesicles, which give rise to the peculiar sound when the air distends them. This supposition is not merely theoretical, but is founded upon observation.

I have already stated that bronchial respiration was almost always combined with the crepitous rhonchus. It is not necessary for me to describe minutely the characters of this sound, which, as you know, consists in a blowing sound heard both in the inspiration and expiration. At times, it is so loud and distinct, as to convey to the observer an impression that the air is actually blown into his ear; in this case, it is called tubal respiration. What I wish to impress upon you is, that this sound is dependent upon the anatomical structure of the lung, as well as upon its induration; hence, wherever you find that the bronchial tubes are very large, and of course give free passage to the air, you will remark that the bronchial respiration is unusally distinct. It is, therefore, most evident at the root of the lungs; that is, at their posterior margin, near the place of union of the upper and lower lobes, precisely at the point where pneumonia most frequently occurs, and is most rapid in its progress. Next to the root of the lungs, you will find that the summit of the right lung is most favourable for its production, and afterwards the summit of the left. The inferior portion of the lungs is much less adapted for the promotion of bronchial respiration, because the tubes are much smaller, and, from their direction, are very easily obstructed by thick mucus, which accumulates in them, at the same time that they are compressed by the distension of the surrounding pulmonary tissue. Hence the bronchial respiration ceases very early in most cases of pneumonia, throughout the lower portion of the lungs. The only sign which is then perceptible, is perhaps a slight crepitus, and an absence of vesicular sound. You are aware that bronchophony is always proportioned to the loudness of the bronchial respiration, and is produced by the same physical state of the lungs.

I have but a word or two to say respecting the physical signs of the third stage. The tissue of the lung remains impervious to the air; hence you find that the percussion remains as dull as it

was throughout the whole of the second stage. The bronchial respiration ceases, or becomes excessively feeble; while every powerful inspiration, or even a slight cough, will give rise to a loose mucous rhonchus, from the quantity of purulent liquor contained in the larger bronchial tubes. Bronchophony diminishes in the same proportion as the bronchial respiration.

When the disease declines, after having reached the third stage, the mucous rhonchus gradually ceases, and the vesicular murmur returns. If it has not advanced farther than the second stage, the bronchial respiration is gradually replaced by a loose, crepitant rhonchus, which subsides as the vesicular murmur returns. When the hepatization has been very complete, the respiration does not resume its natural character immediately after the disease is cured, but remains for a time rough, and the vesicular murmur is in a great degree lost. The slow return of the vesicular murmur is readily explained by the indurated condition of the lung, which is so constantly observed in patients who have died of acute diseases soon after recovering from pneumonia.

These details seem necessary to enable you to understand this disease in its more complicated state. You have learned from the demonstrations of the physical signs which I have made to you in the living patient, as well as from the examination of the lungs in cases which proved fatal, that the phenomena are very regular, and present extremely few exceptions. We are accustomed, therefore, to allude very frequently to pneumonia, as one of the best illustrations of the truth of the physical signs, and one of the most useful objects of study, for those who are desirous of becoming acquainted with these signs; and although much of what I have detailed to you will be trite and uninteresting to those who are already familiar with the subject, I should not have the same assurance that I should be understood in our study of the subject, if I had omitted this grouping of the signs and pathological lesions of pneumonia. After you have acquired a knowledge of the disease in its simple form, you will find the study of its difficult complications greatly facilitated.

DISEASES OF THE EAR.

Saturday, February 2d.—Dr. Horner, whose tour of service commenced this day in conjunction with Dr. Edward Peace, entered the amphitheatre at ten o'clock, and remarked:—

Gentlemen,—The term of my colleague, Dr. Gibson, having just expired, the duty of continuing the surgical clinic in this house has devolved upon me. A very full occupation of my time by my obligations as a lecturer in the University, and other engagements, make any further appropriation of it scarcely desirable. I may also add that the ability displayed by my predecessor, and his very evident familiarity with the duties of this station, render it difficult for one who has so seldom officiated as a clinical lecturer, and never regularly so, to present favourably his services. I have repeatedly witnessed with satisfaction and improvement the very excellent discipline introduced into the clinical course of this house, both in surgery and in medicine, offering as it does the amplest opportunities of acquiring practical knowledge in both these branches. Had I been governed merely by private considerations of convenience and propriety, I should have declined the task assigned me. But a deference to the expressed opinions of my colleagues in this institution, and a desire on my part to sustain as far as was in my power its interests and its usefulness, were paramount considerations. I felt, in fact, zealous for an institution which for its convenience and extent is unrivalled in our country; the administration of which is excellent; and which presents the solitary objection of being rather farther off from our houses than we could wish, and consequently requiring more time and a greater sacrifice of comfort in attending it than we would desire, were the liberty of choice still left.

The very thorough exposition of the existing surgical diseases of the house, and of such as have previously occurred during the season, by my predecessor, leaves but a limited choice of subjects, without the hazard of repetition. I therefore have thought that it would be beneficial to take up a group of affections of high interest, but which unfortunately have been very much neglected by the profession at large—I mean the diseases which assail the organ of hearing, and which are very properly classified under the term *otiatric surgery*. An additional incentive to their study is, the circumstance that such diseases being generally overlooked, I may indeed say almost repudiated, by regular practitioners, have to a great extent fallen under an ignorant empirical management. Even where better knowledge has existed, it has been connected with so much mystification, and such extraordinary claims to special skill, that it has hitherto been placed in an extremely unsatisfactory relation to the profession and to the public. I propose, therefore, to show you that there is no great mystery in treating diseases of the ear; that the rules are simple, the affections few; and that the general results of treatment are such as to encourage us to undertake them. In proof of this assertion I will here exhibit and explain a "Tabular view of the Curability and Frequency of Diseases of the Ear," by Dr. Kramer, a gentleman of whose labours in this department of our science I shall have occasion to speak more fully presently.

NAME OF THE DISEASE.	Incurable and not treated.	Cured.	Relieved.	Uncured.	TOTAL.		
OF THE AURICLE.							
Erysipelatous Inflammation	..	1	..	..	1	3	
Scirrhous Degeneration	..	2	..	..	2		
Furuncle	..	..	..	..	..		
IN THE MEATUS EXTERNUS.							In the External Ear.
Erysipelatous Inflammation	..	17	..	..	17	46	85
Inflammation of the Glandular Integument	3	9	13	..	25		
Inflammation of the Cellular Tissue	..	2	..	..	2		
Inflammation of the Periosteum	2	..	..	..	2		
OF THE MEMBRANA TYMPANI.							
Acute Inflammation	..	1	..	..	1	36	
Chronic Inflammation	11	7	17	..	35		
IN THE CAVITY OF THE TYMPANUM AND EUSTACHIAN TUBE.							In the Middle Ear.
Inflammation of the Mucous Membrane, with Obstruction	..	28	6	..	34	55	55
Inflammation of the Mucous Membrane, with Stricture of the Eustachian Tube	16	..	3	..	19		
Inflammation of the Mucous Membrane, with Obliteration of the Eustachian Tube	1	..	..	..	1		
Inflammation of the Cellular Tissue of the Cavity of the Tympanum	..	..	..	1	1		
IN THE LABYRINTH.							In the Internal Ear.
Erethitic Nervous Deafness	60	21	52	7	140	152	152
Torpid Nervous Deafness	3	8	1	..	12		
Deafness and Dumbness	8	..	..	..	8		8
	104	96	92	8	300		300
		188 relieved.					

Much of the professional reluctance to meddle with diseases of the ear has arisen, I am convinced, from a false view or estimate of its anatomy. We have been frightened by its intricacy. Of this intricacy there can be no doubt; but let us observe that it is one of mechanical arrangement, and not the complexity of a vast mass of materials diversely blended. Only a few materials enter into the composition of a house, and yet we may build a very simple or a very intricate house. But the study of such materials has no necessary connection with the intricacy of position; we may study them in their most simple or uncombined condition. In the same way the study of the ear is accomplished upon the basis of its elements or tissues, and not upon the basis of their position. If these elements, instead of a complex mechanical arrangement, were laid out like the squares of a checker-board, we should not hesitate to declare their diseases curable. With regard to the physiological action of remedies we have just the same opportunity in the body as if this were actually the case. It is only in the mechanical treatment that we are embarrassed, and a proper diligence in studying aural anatomy, and the requisite manipulations, will enable us to overcome many of these difficulties. Upon the principle just stated, the problem to be solved is simple enough; for the elementary tissues which enter into the composition of the ear are few in number, and of these a small portion only are commonly involved in disease. These elementary tissues are,—1. Bone. 2. Cartilage. 3. Skin. 4. Glandular structure. 5. Mucous membrane. 6. Condensed cellular tissue. 7. Serous membrane. 8. Blood-vessels and nerves. The muscular structure might be added, but it exists in such feeble proportion, that I do not think it worth while to bring it forward at present. The diseases of the ear fall almost exclusively, or in an overwhelming majority, upon four of these tissues—the dermoid, the glandular, the mucous, and the nervous, or the nervous and serous combined, for in fact it is impossible to separate them. We thus reduce the practical points of otiatric pathology to very few, and simplify, to an almost equal degree, the means of treatment. As to the hypothetical diseases, such as we might conceive a structure like the organ of hearing to be subject to, it would scarcely be reasonable to embarrass ourselves with the possibility of their being present, when there are so many probabilities, I might almost say, certainties that they are not.

Every affection of the ear must resolve itself

either into a derangement of mechanism, or a derangement of tissue. The latter is most common. I shall now offer you an outline of these derangements in each division of the ear.

The mechanical derangements of the meatus externus arise from mechanical obstruction which is most commonly produced by an accumulation of ear wax, foreign bodies, or small tumours. These several conditions arrest audition simply by interposing a barrier to the vibrations of the air, in the same manner as we stop our ears with the finger.

In regard to the middle ear, its mechanical impediments to conducting a vibration of the air, may arise from a collection of mucus, or of any thing else which fills the tympanum, as blood or a tumour, or it may be caused by an obstruction of the Eustachian tube sensibly diminishing the vibrations of the air contained in the tympanal cavity, and consequently of the membrana tympani, in the same way as stopping up the hole in the side of a drum. Or, lastly, the vibrations of the membrana tympani may not be conveyed to the line of the ossicula auditus, owing to some interruption in the communication by fracture or dislocation of the latter; in which case the membrana tympani is probably only a barrier, and not an assistance in transmitting sound.

In regard to the labarynth or internal ear, we have no means of distinguishing its mechanical derangements. We might indeed imagine a great many, but they would be mere conjectures, more likely to lead us astray in the treatment of any one case than to establish rational signs.

The most general complaint with regard to the function of hearing, is its failing, or in other words, it is in a state of paracusis. There are examples also of hypercusis, or an extreme sensibility or exaltation of the function, making sounds incredibly distressingly sonorous. There are also sounds entirely deceptive, and from their not being real are called susurrus, or tinnitus, and they simulate all the noises under heaven. They may be considered as a sort of delirium of the sense, which, like that of the brain, sometimes renders it almost impossible to make a rational application of the sense in the midst of the agitations which are sure to visit it.

With a view of making more intelligible subsequent remarks, it may be as well to spend a few moments in studying the prominent traits in the anatomy of the ear.

[A demonstration was now made from some sections of the cranium prepared for the purpose.]

The early stage of acoustic medicine presents but little to admire or imitate. Its therapeutics consisted almost entirely of the application of stimulating articles to the meatus externus, such as garlic, onions, euphorbium, savine, hellebore, &c. &c. Most of the distinguished anatomical names of the fifteenth and sixteenth centuries, as Ingrassius, Eustachius, Fallopius, &c., are found in connection with efforts to advance this department of medicine. The result of their labours were some brilliant discoveries in the minute anatomy of the organ, but nothing useful, either therapeutically or pathologically was done. In 1724 Guyton, a postmaster at Versailles, more than two hundred years after the discovery of the Eustachian tube, by a lucky thought, injected his own Eustachian tube for the relief of deafness. This he did through the mouth. In 1741, Cleland, an Englishman, introduced the tube through the nose. Since then there have been successive stages of improvement, until the operation has become as settled, and almost as easy as catheterism of the bladder. There have been a vast number of writers in otiatric literature, but by most of them little has been contributed to the science. To Itard, we are indebted for perfecting and developing the manner of injecting the middle ear through the Eustachian tube. To Deleau is due the merit of applying the air-donche for the same purpose. Otiatric surgery has received a new impulse within the last few years, by the publication of a treatise by Dr. Kramer, a German physician, who has made diseases of the ear an especial object of study, and by his clear and systematic arrangement, has contributed in a great measure, to remove the opprobrium which was before so justly attached to this important branch of surgery. I shall have frequent occasion to refer to Dr. Kramer, and shall adopt and follow his classification and views in many respects.

The deprivation of the function of audition is certainly one of the most serious calamities that can befall a person, involving as it does the mental and moral character of the individual. Those children who, from congenital malformation or from disease in very early life, are deprived of their hearing, are particularly objects of commiseration, owing to their social position.

A good deal of dispute has arisen as to the relative importance of particular portions of the ear. Itard has gone so far as to assert that the external ear is useless, and that no diminution of audition would take place from the destruction of the auricle, while, on the other hand, Buchanan attaches the greatest consideration to this constituent of the auditory apparatus. In order that the whole organ should be in the highest degree of perfection, a perfectly healthy condition of all its elements should exist.

It may not be improper here to call your attention to the subject of prophylaxis, or the adoption of such rules as will tend to preserve the integrity of the function of hearing. The agents which unquestionably exert the most injurious influence on the ear are *cold, and acute sounds.* Popular opinion endows cold with the property of invigorating the organ of hearing, which is a very erroneous and pernicious idea, for from its limited connection with the vascular system it is peculiarly unfitted to resist the effects of cold. While bathing, the ear should be protected by a plug of cotton in the meatus, and should be cleansed only with tepid water. As I have before stated that the most universal symptoms of aural disease was either an exaltation or a diminution of the functions of the ear, and that the latter was most frequent; in order to deter-

mine the precise extent of the morbid condition, a watch should be employed which admits of a definite and uniform standard of comparison. The human voice is too various and too liable to produce deceptive results to be relied on with any sort of confidence. Some complicated acoutemeters have been invented, but they are all inferior to the watch. From the particular organization of the ear, its affections are, for the most part, of a chronic character. According to Kramer not more than two out of an hundred cases are acute, or seen marked in the commencement with acute symptoms. There can be no doubt that some persons are particularly subject to aural maladies from hereditary predisposition, and advanced age brings additional liability to them, though the exposed and unprotected condition of this delicate organ is probably the most important predisposing cause. Among the exciting causes I have already mentioned cold, which undoubtedly is the first. Diseases of the ear are frequent sequelæ of the exanthemata, as scarlatina, measles, variola, &c., and of erysipelas. Also, the chronic cutaneous disorders, as crusta lactea, tinca capitis, &c. In scrofulous affections we continually see the ear involved, and in the Children's Asylum attached to this institution, where purulent ophthalmia is a very formidable affection, it is very apt to be complicated with catarrhal inflammation of the meatus auditorius.

The prognosis is by no means as bad as commonly anticipated, provided they receive early and continued attention. In 300 cases recorded promiscuously by Kramer, 188 were either completely relieved or materially benefitted; 104 were hopeless, and no attempt at relief was made; eight were totally unrelieved by any plan of treatment.

A careful local investigation is necessary in all cases at the outset. In proof of this, Kramer states that out of 300 patients he found the membrana tympani partially destroyed in 28, without its being suspected by the practitioners who previously had had charge of the cases, and who had been employing stimulating applications in their treatment.

I shall now proceed to exhibit to you such instruments as are commonly employed either in the investigation or treatment of diseases of the ear.

[The ear-syringe and speculum of Kramer, the lantern, and silver catheter for the Eustachian tube, the air-condenser, and ear-trumpets, were successively shown, and directions were given for their use, which was further practically demonstrated. In exhibiting the speculum, Dr. Horner dilated on the necessity of a careful local investigation of the meatus externus in diseases of the ear. He mentioned some cases related by Kramer, where ridiculous mistakes had occurred from the neglect of this precaution. He also related the case of a gentleman in his practice, who had been treated for vertigo, and apoplectic symptoms homœopathically. On an examination of the ear, a plug of wax half an inch long was found in each meatus. On their removal, all the disagreeable symptoms disappeared. The air-condenser used by Dr. Horner is of simple construction, and is adapted by himself. It consists of a simple air-tight tin cylinder, to which a syringe is fitted, and which forces in another atmosphere, the cock is then turned, and the flexible tube is adjusted. He has found it in all cases of sufficient power. The manner of testing by the air-donche and bougie, the permeability of the Eustachian tube were explained and demonstrated. A demonstration was also made of testing the permeability of the Eustachian tube by puncturing the membrana tympani. The meatus is corked up; by a tube previously fitted in the cork, air or water is injected into the middle-ear, which if the tube be pervious runs out through the nose.]

This operation, gentlemen, I have repeatedly performed, when from circumstances the patient wanted an immediate decision on his case; the knife with which I do it, is as you see, about a line in breadth and being introduced at the lower margin of the membrana tympani, a solitary puncture is made from the circumference to the centre. I have not known any inconvenience to arise from this trial, and the wound soon heals; more cases, however, are yet wanted to learn whether it is an operation which may be always done with impunity, and until this is settled I refain from recommending it as a general practice. It is a plan unquestionably preferable to that of Itard, who punctures the membrana tympani, and gropes about with the point of the syringe to find where the hole is.

[Three cases of catarrhal inflammation of the meatus externus in children were then brought forward, and their symptoms explained, and also the concomitance of this affection with the purulent ophthalmy, which the children of the asylum suffer so extensively with.

The lecture terminated by exhibiting several cases of frost bite, or congelation from cold, and directions for their treatment.]

THE MEDICAL EXAMINER.

PHILADELPHIA, FEB. 16, 1839.

UNIVERSITY OF THE CITY OF NEW YORK.

This institution is unfortunate enough in some respects. Its council, infected with the same mania for government which caused the resignation of a faculty of arts five years since, has obliged the medical professors to resign in a body. It seems that, for the most part, they are still associated,—and, in all probability, an attempt will be made to form a new medical institution.

The difficulties which took place between the professors and council, arose from a common subject of misunderstanding. The council required from

the professors contributions in the form of rent, &c., which would have been exorbitant in an old and flourishing institution. That is, if the University had already been in successful action, and had offered classes of three hundred pupils, it would, to say the least of it, have been highly illiberal to have exacted terms of the nature of those required by the council of the New York University. The question, however, was not one of mere policy,—it was clearly impossible for the professors to accede to the demands of the council, without incurring the risk of very considerable pecuniary obligations.

We know that a medical school which is connected with a literary institution, is pretty sure of being heavily taxed towards the support of the institution in general. When the school is long established, has acquired a name, and may be regarded as a source of permanent income, it will bear such a drain upon its resources. We would not be understood as sanctioning these demands,—they are, to us, clearly unjust,—and it is, in our opinion, entirely at variance with a just administration, to withdraw funds which are derived from a successful medical department of a school, and apply them to the support of the other branches of the institution. It is very obvious that if the professors are able to keep together large classes, and to derive from them a larger income than is necessary for their just remuneration, the excess should be devoted to increasing the means of instruction, to the purchase of apparatus, and preparations of various kinds, which are so necessary to the successful teaching of the medical sciences. Still, there can never be a difficulty in finding competent men to fill the chairs as soon as vacancies occur; for the established standing of the school is, in itself, of actual value, and for a connexion with it every new incumbent is willing to pay a certain proportion of the fees of the students.

In a new institution like the University of New York, no advantage whatever could be derived from a connexion with it, other than the use of the rooms, and the privilege of conferring degrees. The medical professors of the University of New York were perfectly willing, and had already agreed to pay a fair rent for the use of the rooms, but they very properly refused to pay for the privilege of conferring degrees. For, it is quite plain that the demand of the council could never have been founded on any other ground than the fact of the charter having a supposed pecuniary value. The experience of other institutions would have taught the council that the right of conferring degrees is, in itself, of little or no value, until the reputation of the professors, and, consequently, of the school, has drawn together a considerable class of students. At their commencement, medical schools have many difficulties to contend with, and require the fostering aid of those who are invested with the government of the institutions with which they may be connected.

The plan of instruction which was adopted in the University of New York, differed in some respects from that pursued in the older schools. The usual seven professors were appointed, and an attendance on their lectures would entitle the student to a degree upon examination; but an additional number were added to the faculty, as extraordinary professors, to enable those pupils who might desire a more finished education to continue their studies, and pursue a course of instruction nearly as complete as that offered by the continental schools. Whether this innovation would have proved successful, could only have been learned from experience; but, at any rate, the laudable attempt to extend the course of instruction was worthy of a fair trial.

Died, at Louisville, Kentucky, on the 26th ult., of acute pulmonary consumption, Dr. Daniel Brent, in the 22d year of his age, son of Col. Wm. Brent, of Washington.

Dr. Brent graduated at Philadelphia a year since, and is deeply regretted by his friends and associates, as a physician of high promise, and of exemplary private character.

DOMESTIC SUMMARY.

American Phrenological Journal.—We continue to receive this journal, published monthly by A. Waldie. It has our good wishes for its success.

The American Philosophical Society has declined acceding to the proposal which emanated from Boston, (noticed in No. 2,) relative to an *American Institution for the Cultivation of Science.*

Lithotomy in the South.—Dr. Antony, one of the ablest and most experienced Southern surgeons, states in a late number of the Southern Medical and Surgical Journal, that he "knows of no cases of distress from urinary calculi having occurred in his section of country, so serious as to call for surgical aid, at least for extraction from the bladder—and of but one instance in the whole population of Augusta, (Georgia,)

and the surrounding country, of a person for whom that operation has been demanded; and that case occurred many years ago." We noticed, in a recent number, the *hundred and fifty-seventh* operation for lithotomy, of Dr. Dudley, of Kentucky.

Foreign body in the Esophagus six weeks—its extraction.—A boy of about five years of age, the son of Mr. J. L., of Augusta, was playing with a large ivory button in his mouth, when he accidentally swallowed it. Presuming it had passed into his stomach, no notice was taken of the event until meal-time, when the boy complained that he could swallow nothing but liquids, and that even these occasioned pain in the esophagus, opposite the upper extremity of the sternum. It was now presumed that the button had lodged in this part of the passage, and a physician was called, who introduced without difficulty an elastic tube into the stomach, without detecting any thing indicative of the presence of the foreign body. The presumption was, that the painful deglutition was to be attributed to abrasion of the mucous surface, and the boy was ordered to use liquid and unirritating food. This state of things continued for several weeks, during which time the tube was again passed without obstacle into the stomach—emetics, I believe, were administered, &c.

At the end of six weeks, Dr. Dugas was called, and, on examination, detected the presence of the button at the seat of pain, and withdrew it with a common probang. It was of ordinary thickness, and measured one inch in diameter. No unpleasant effect followed its removal, and the soreness soon subsided.

Remarks.—This case presents the remarkable fact, of the presence, during six weeks, of a foreign body in so delicate a texture as that of the esophagus, without occasioning any serious inflammation, and without disturbing the general health. It was so low down as not to be felt by external pressure, and the button having no *eye*, permitted the free passage of the small tube.—*Professor Dugas' Surgical Cases, Southern Med. and Sur. Jour.*

Observations on the Carbonate and Protomuriate of Iron. By WILIAM PROCTER, JR.—The particular object of this notice is to call the attention of pharmaceutists to the fact, that the carbonate of iron, obtained by M. Vallet's method, can be applied in the process for making several ferruginous preparations, with a certainty and accuracy that will go far to recommend its use.

Tincture of Muriate of Iron.—The formula of the United States Pharmacopœia consists in acting on the precipitated carbonate of iron with muriatic acid, and afterwards adding a given quantity of alcohol. Owing to the variable nature of the precipitated carbonate, as respects the proportion of protoxide of iron which it contains, we have a preparation varying in strength; besides, a portion of uncombined acid remains, which reacts on the alcohol, as is evident from its etherial odour.

The process now offered is to take any quantity of officinal muriatic acid, and saturate it with Vallet's carbonate of the protoxide of iron; by these means, a solution of the protomuriate of iron is obtained, which contains a quantity of the ferruginous salt in proportion to the strength of the acid employed. To this solution as much alcohol is to be added as will reduce the preparation to the proportion of thirty-two grains of the protoxide, or about sixty-four grains of the protomuriate, to the ounce of tincture.

In this state, however, there is a continual liability to the absorption of oxygen, by which a portion of the proto- is converted into permuriate, and to the separation of peroxide of iron. To remedy this inconvenience, a portion of honey is to be added to the muriatic solution at the time of its mixture with the alcohol. This saccharine substance protects the protosalt, at the same time that it does not interfere with the chemical or therapeutic properties of the medicine.

In making the muriatic solution, take 480 grains of muriatic acid, of sp. grav. 1.16, which contains 32.32 per cent. of acid, and saturate it with protocarbonate of iron: consequently, for every thirty-seven grains of muriatic acid, thirty-six grains of protoxide of iron are required: so that $32.32 \times 4.80 = 154.836$ of acid, then as $37 : 36 :: 154.836 \cdot\cdot 150.651$, the quantity of protoxide of iron required to the ounce of muriatic acid. Owing to the moist state of the carbonate, when used, the amount of liquid, after saturation, is just double. Whatever may be its bulk, however, it contains about 150 grains of protoxide of iron, so that the other fluid must be added till the solution contains thirty-two grains of the protoxide to the ounce.

The principal advantage of this process is, that a given amount of acid requires a much larger portion of iron for its saturation than when the peroxide is used, because the permuriate is a sesquimuriate. Thus, $(3\,Fe.O) + (3\,Cl.H) - (Fe^2O^3) + (3Cl.H) = Fe.$ 1 equivalent; consequently, in saturating three equivalents of muriatic acid with the protoxide and peroxide respectively; there is one whole atom, or fifty per cent. of iron, more in the former than in the latter; hence the muriate of the protoxide is decidedly to be preferred.

The following is a formula for tincture of muriate of iron:

℞.—Acid. Hydrochlor.	℥ij. (troy.)
Ferri Protocarb.	q. s. ad saturand.
Mellis,	℥ijss.
Alcoholis,	q. s.

Saturate the acid with the carbonate, then add the honey, and finally, sufficient alcohol to make nineteen fluid ounces of tincture. After standing six hours, filter for use.

Carbonate of iron can be advantageously employed in making the tartrate and acetate of iron, and the tartrate of iron and potassa.—*Am. Journal of Pharmacy, January*, 1839.

FOREIGN SUMMARY.

Case of extensive Detachment of the Skin. By the late JAMES WIER, M. D.—C. Cowans, aged 11, a stout, healthy, and active girl. On the forenoon of October 4, 1825, while handing sheaves of barley to her father, who was feeding a threshing-mill newly put up, she inadvertently approached so near to the machinery, which was still uncovered, that her hair, which was coiled up behind, was caught by the teeth of the pinions which turned the rollers, and dragged inwards. Before she could be rescued from her perilous situation, the integuments had been extensively detached from the upper part of the head and the posterior part of the neck. The skin had burst over the superciliary ridges, stripping off the cilium of the left eye, detaching almost the whole of the cartilage of the left ear, leaving it hanging by its lobe, and exposing the muscles covering the angle of the jaw; on the right side, it had given way immediately above the cilium, and was detached downwards, forming a curve around the right ear, leaving it almost insulated. The separation of the skin proceeded downwards, denuded all the posterior part of the neck, exposed part of the muscles of the left scapula, and reached to the edge of the right; below this it became more narrow, assuming the shape of the *trapezii* muscles, and when the father, by an Herculean exertion of strength, had stopt the machinery by laying hold of the spur wheel, it had extended nearly to the last dorsal vertebra. By turning back the machinery, the detached scalp and skin were unravelled, and were scarcely lacerated from the manner in which the rollers were constructed to take in the sheaves, except a small part where the scalp was first laid hold of. As they proceeded to convey her to the house, the father, seeing the detached skin trailing behind, took out his knife, and unfortunately cut it off as far down as the last cervical vertebra.

Being from home when the messenger despatched to request my presence arrived, my assistant, Mr. J. Marshall, set off with all possible speed, and found matters in the state above described. Two hours might intervene between the time of the occurrence of the accident and the arrival of my assistant, the distance being six miles. On the cause of the deficiency of the integuments being explained to Mr. Marshall, though the hopes of procuring any adhesion with the portion removed, and the parts from which it had been stripped, were certainly very improbable, yet, as no harm could accrue from the attempt, he cleared it of the hair and beards of barley, and carefully secured it in its place by stitches and adhesive plaster.

I saw her next day, and found her pulse about 120, and feeble, though, from the nature of the accident, she had lost but a very few ounces of blood. Skin nearly of the natural temperature. Some wine was directed to be given.

8th. On removing the dressings, we perceived that not only that portion of the skin which had been detached by the knife, but also three or four inches of the upper part of that which had been left adherent, had lost their vitality, and resembled a slough about to be thrown off. The exposed surface was dressed with simple ointment, and the wine was continued along with a farinaceous diet.

10th. The greater part of the remaining dead skin was washed off, and healthy granulations had appeared on the cranial surface. The pulse was still feeble and frequent. She complained very little of pain. The wine was continued.

12th. I was much disappointed, upon removing the dressing to observe that the granulations had disappeared. Her pulse could scarcely be counted, and was very feeble. The wine was increased. A cupful of beef-tea daily was ordered.

14th. Some slight appearance of the return of the granulations upon cranial surface. The pulse was firmer, still very feeble. The wine and beef-tea were continued.

16th. Granulations numerous on the cranial surface, though scarcely apparent on the other parts of the sore. The discharge of purulent matter was pretty copious. No appearance of union betwixt that portion of the skin which still retained its vitality and the subjacent surface.

18th. Granulations had again disappeared, and the discharge of purulent matter was diminished. Pulse again more feeble, and she was altogether worse. The left external ear still un-united. Six ounces of wine and a pound of beef-tea daily were ordered to be given.

20th. Granulations beginning to show themselves on the cranial surface. The pulse was stronger and less frequent.

22d. Granulations more apparent upon cranial surface, and also beginning to present themselves on the other parts of the sore. Pulse improving in strength.

28th. Appearance of sore continuing to improve. Severe inflammation of left eye.

From this time, she progressively gained strength, and the surface of the sore retained its healthy appearance. The left external ear, which had been frequently replaced, was neglected in my absence for a few days, and was found adhering to the neck where it was allowed to remain. She soon became able to sit up in bed, reclining her head on her knees. New skin began to shoot from the edges of the old. The palpebræ of the left eye were drawn towards the ear, and the opening between them extended to nearly three inches in length, leaving the eye permanently exposed. The constant inflammation of the eye which this produced, terminated at last in staphyloma. Two months after the accident, her strength was so much improved, that she began to employ herself in sewing.

During the following summer, she was able to go out to the open air when the weather was favourable. That portion of the skin which retained its vitality had now occupied its former place, but the new skin extended very tardily from the edge of the old, more particularly on

the cranial surface. No insulated portions of skin ever appeared on the surface of the sore.

About three years and three months from the time of the accident, she became affected with gangrene of the left foot, apparently from neglected chilblains. The gangrene continued to extend towards the trunk, and she died in the course of ten days. By the approximation of the old, and the production of new integuments, the neck was skinned over as high as the third cervical vertebra, but the granulations on the upper part of the neck, the occiput, the *ossa parietalia*, and part of the squamous portions of the temporal bones, still remained uncovered at her death. She had grown taller, but never recovered her former plumpness.—*Ed. Med. and Sur. Journal, Oct.*, 1838.

Aneurism at the bend of the arm consequent upon venesection—operation.—P. N., aged 17, from Milnathort, was admitted on the 9th of August, on account of a tumour which had occurred at the bend of the right arm, in consequence of a bleeding performed two weeks previously for some affection of the throat. Nothing, he says, happened at the time to occasion alarm, but two hours afterwards, the arm swelled, so as to excite his apprehension, which was relieved by the operator's assurance that there was nothing that would not soon be dispelled by friction with some stimulating liniment. General swelling of the arm nevertheless took place, and when this subsided, a diffused pulsating tumour was found at the bend of the arm, above and below which it extended for nearly three inches. The arm could not be extended beyond a right angle, and there was hardly any pulse to be felt at the wrist. After trying compression for a few days, without any benefit, I took the advice of my colleagues in regard to the case, and was by them advised not to delay the operation any longer, as three weeks had elapsed, and the state of matters was not improving.

I therefore, after applying a tourniquet to the arm, made a free incision into the aneurism, turned out the clots, and tied the artery above and below the wound, which was nearly a quarter of an inch in length. In a former report I have recorded a case of this kind, in which I tied the brachial artery without opening the sac, but was afterwards obliged to do so, from the disease not being controlled by this measure.—*Syme's Report of Surgical Cases, Edinburgh Medical and Surgical Journal.*

Aneurism of the External Iliac Artery—obscurity delaying an operation—mortification of the limb—ligature of the common iliac, and amputation of the thigh—dissection.—On the 15th of May last I was requested by Dr. Alison, to see a case of iliac aneurism in a man who had come from the country. I found the patient, Alexander M'Dougal, aged 31, a thin, anxious, unhealthy looking person, by occupation a tailor. He stated that, three months before, he had perceived a beating tumour, the size of a pigeon's egg, in the right groin, which rapidly increased in size. A medical practitioner in the part of the country from which he came, prescribed fomentations, liniments, and poultices, with the view of hastening its progress to a proper state for being opened. As it gradually increased in size both upwards and downwards, without becoming softer or appearing to approach the surface, leeches and mercurial ointment were next employed, and no benefit being derived from these means, poultices of potatoes were recommended. He then applied to another practitioner, who told him that an operation would be required, and a third gentleman gave him the same opinion.

Having carefully examined the tumour, I came to the conclusion that it was an aneurism still within command by tying the common iliac artery, and advised him to go into the hospital. He did so, and in the case which I dictated next day to my clerk, it is stated, that "there is now a large tumour occupying the whole space between the pubes and the crest of the ilium, and extending three inches above a line drawn between these two points, and nearly two below it. The consistence of this tumour is tense and elastic; a very obscure pulsation may be felt at some parts of its extent; and the aneurismal *bruit* is very distinctly heard. The patient complains principally of pain in the knee."

My colleagues, Sir George Ballingall and Dr. Campbell, could not perceive any pulsation, but from the history of the case, and the general character of the tumour, agreed with me in regarding the tumour as an aneurism. With their their sanction I resolved to tie the common iliac artery, and desired the usual notice of an operation to be issued. In the evening, Dr. Alison, who at my request had again examined the tumour, sent me a note to say that he felt strongly inclined to think that it was not an aneurism, and I therefore resolved not to proceed without farther observation of the case. Next day a great number of medical gentleman assembled to see the operation which had been announced, and I took the opportunity of getting their opinions as to the nature of the tumour. Sir Charles Bell, Sir William Newbigging, Sir George Ballingall, Drs. Abercrombie, Davidson, Maclagan, Hay, Campbell, Robertson, &c. &c., carefully examined the swelling, and came to the unanimous conclusion that it would be wrong to operate until the nature of the case became more distinctly manifested.

After this, the tumour obviously enlarged, and acquired a more irregular and modulated surface,—the limb became œdematous. The pain in the knee, too, which had been very severe, seemed now quite intolerable, not only rendering the patient completely sleepless, but inducing him to sit constantly in bed with his head bent forward, almost in contact with his knees; and his complexion, which had been always sallow and unhealthy, assumed more of the greenish-yellow hue attending malignant disease of the cerebriform kind. Some persons, who at an

earlier period had hastily and confidently decided upon the tumour possessing a solid consistence, then boasted of their superior acumen, and the patient seeing no prospect of relief, resolved to return home. As it was very desirable to see the issue of the case, and as it would have been impossible for the poor man to obtain at his own residence the means necessary for palliating his sufferings, I persuaded him, since he was resolved to leave the Infirmary, to go into the private hospital at Minto House, which he accordingly did on the 4th of June.

On the 6th the leg became cold, and on the 7th pulsation was felt distinctly throughout the tumour. On the 8th I requested Sir Charles Bell, Sir George Ballingall, and Dr. Campbell, to consider what should be done. The pulsation left no doubts as to the existence of aneurism. But the tumour had ascended to within an inch of the umbilicus. And the leg was not only cold, but of a bluish-purple colour from the knee downwards, with some large vesicles on the calf. It was plain that the mortification, if allowed to proceed, must prove fatal in two or three days at most. There was reason to think that room still remained for tying the common iliac; and that if this were done, the process of mortification might be stopped, by amputating the thigh. We therefore resolved that an attempt should still be made to save the patient's life.

The external incision was between six and seven inches long, extending from a little above the external ring upwards in the direction of Poupart's ligament, but diverging from it with a slight curve inwards. The parietes of the abdomen were readily divided, and little difficulty was experienced in turning back the peritoneum from the tumour, which was done cautiously to prevent rupture of the membrane on the one hand, or of the sac on the other. I felt the external iliac artery beating on the upper surface of the tumour, and traced it back until it became free, immediately beyond which the internal iliac came under the finger, and beyond this the common trunk lay quite free. So far the operation, however formidable, had not been attended with much embarrassment. But in proceeding to pass a ligature round the vessel, I found the narrow space, which was all that could be gained between the unyielding convex surface of the tumour, and the peritoneum distended by the viscera, and which was nearly equal in depth to the whole length of my hand, rendered the employment of aneurism needles very perplexing and uncertain. Having tried several of different kinds, I at length succeeded in passing one of the simplest form; and then, having the parietes of the cavity held carefully aside by iron spatulas, got a view of the ligature, and drew it out by means of a hook. A single firm knot was tied on the vessel, and one end of the thread cut away. The edges of the wound were stitched together.

In the course of the day the tumour became smaller and softer. The coldness and discolouration of the limb extended above the knee, and the patient complained of inability to retain anything in his stomach. On the 9th he was much in the same state, with some tympanitic distension of the abdomen. On the 10th he was no worse. On the 11th amputation of the thigh was performed close above the discoloured part of the limb. On the 12th the patient died.

On dissection, we found the common iliac firmly tied, exactly at the middle point between its origin and bifurcation, without any inclusion or injury of the neighbouring parts. The vessel contained a clot above and below the obstruction. The peritoneum showed traces of much inflammation, but not general or very extensive. The nodular inequalities of the surface of the tumour depended on the glands of the groin, which were enlarged and elevated by the subjacent swelling. The aneurism was of great extent, occupying the triangular hollow of the thigh, and stretching up into the pelvis, so as to fill the cavity of the *ilium*, and even extend considerably beyond it towards the back. The ramus of the pubes was exposed and rough, and the capsule of the joint was nearly, if not completely, perforated by absorption.

The external iliac, and its continuation, the common femoral artery, lay intimately incorporated with the aneurismal sac, but remained quite entire, except for about an inch at Poupart's ligament, where the coats of the vessel were deficient to this extent, on its inner or inferior surface.—*Ib.*

Partus per Anum.—Dr. Mekeln, of Kettwig, was called to a female on the 1st of January, who had given birth to a strong and living infant through the anus, two hours before his arrival. The wound in the under part of the vagina, as well as that in the rectum, was of great size. The perinæum, from the aperture of the anus to the vagina, was two-thirds torn, and very painful.

After three days, both the urine and fæces passed by their ordinary channels.

On the fourth day suppuration occurred; the wounds healed, and the woman in due course recovered her strength. Dr. Mekeln declares that he could discover no defect in the organization of the parts. The midwife states that at her arrival, she found the head of the child in the rectum.—*Dublin Journal, from the General Sanitäts-Berichte des Königlichen Medicinal-Collegium's.*

Tinea Capitis.—With the best success I have employed the ointment of Jasser in this complaint: its composition is

℞. Sulph. Purific. Vitriol Albi, ℥ aa ℥ij.—Axungiæ Porci recent. ℥vj.

M. ft. ung.

With this ointment let a portion of the head be rubbed,—after which, in some days, cracks in the scruff occur, and it then peels off. Every eight days I give a laxative of mercury, and prescribe a decoction of the woods, by which means this disease is generally cured in the space of from four to five weeks.—*Ibid, from Hufeland's Journal, 3d Part*, March, 1837.